

# **Sources and prices of selected drugs and diagnostics for people living with HIV/AIDS**

**MAY 2002**



A joint UNICEF – UNAIDS Secretariat – WHO – MSF Project

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WHO/ Department of Essential Drugs and Medicines Policy: [www.who.int/medicines](http://www.who.int/medicines)

WHO/ Department of HIV/AIDS: [www.who.int/HIV\\_AIDS](http://www.who.int/HIV_AIDS)

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Information on HIV/AIDS diagnostic support, HIV test kit evaluations and bulk procurement are available on the WHO/ Department of Blood Safety and Clinical Technology website: [www.who.int/bct](http://www.who.int/bct)

Information on HIV/AIDS and substance abuse dependence is available from [www.who.int/substance\\_abuse](http://www.who.int/substance_abuse)

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# Glossary

**AIDS<sup>1</sup>** Acquired Immune Deficiency Syndrome – the late stage of HIV disease. AIDS involves the loss of function of the immune system as CD4 cells are infected and destroyed, allowing the body to succumb to opportunistic infections (e.g., *Pneumocystis carinii* pneumonia, toxoplasmosis) that are generally not pathogenic in people with intact immune systems.

**BNF** British National Formulary – provides information about medicines, their use, and cost for the British National Health Service.

**COF** Consejo General de Colegios Oficiales de Farmacéuticos – Spanish organization of Pharmaceutical Colleges, which represents all colleges in the national and international forum, develops norms, rules, and professional policy, and acts as the interlocutor with Spanish Ministries.

**Diagnostics** Laboratory tests used in the diagnosis of HIV infection. There are 3 main types of test for detecting the presence of HIV antibodies: simple/rapid tests, ELISA tests, and confirmatory tests.

**ELISA** Enzyme-linked immunosorbent assay – first HIV antibody test which requires a machine to measure color change in test wells.

**Endemic<sup>1</sup>** The continuous presence of a disease in a geographic location, community or population.

**Epidemic<sup>1</sup>** An outbreak of a disease within a population. See also pandemic.

**EXW<sup>2</sup>** Ex-works – (... named place) the seller's only responsibility is to make the goods available at the seller's premises, i.e., the works or factory. The seller is not responsible for loading the goods on the vehicle provided by the buyer unless otherwise agreed. The buyer bears the full costs and risk involved in bringing the goods from there to the desired destination. Ex works represents the minimum obligation of the seller.

**FCA (nearest port)<sup>2</sup>** Free Carrier – (... named place) This term has been designed to meet the requirements of multimodal transport, such as container or roll-on, roll-off traffic by trailers and ferries. It is based on the same name principle as F.O.B. (free on board), except the seller fulfills its obligations when the goods are delivered to the custody of the carrier at the named

place. If no precise place can be named at the time of the contract of sale, the parties should refer to the place where the carrier should take the goods into its charge. The risk of loss or damage to the goods is transferred from seller.

**FOB<sup>2</sup>** Free-on-board – (... named port of shipment) Under "F.O.B" the goods are placed on board the ship by the seller at a port of shipment named in the sales agreement. The risk of loss of or damage to the goods is transferred to the buyer when the goods pass the ship's rail (i.e., off the dock and placed on the ship). The seller pays the cost of loading the goods.

**Generic drug<sup>3</sup>** The term "generic product" has somewhat different meaning in different jurisdictions. In many technical documents, use of this term is avoided, and the term 'multisource pharmaceutical product' is used instead. In this document, where the term generic drug is used, it means a pharmaceutical product usually intended to be interchangeable with the innovator product, which is usually manufactured without a license from the innovator company and marketed after expiry of patent or other exclusivity rights where these have previously existed. Generic products may be marketed either under the nonproprietary approved name or under a new brand (proprietary) name. They may sometimes be marketed in dosage forms and/or strengths different from those of the innovator products.

**Generic pharmaceutical manufacturers** Manufacturers who produce generic drugs

**GMP** Good Manufacturing Practice

**HAART** Highly Active Antiretroviral Therapy

**HDI** Human Development Index

**HIV** Human Immunodeficiency Virus – a slow-acting retrovirus of the lentivirus family, believed to be the sole or primary cause of AIDS. HIV is transmitted sexu-

<sup>1</sup> AIDS Education Global Information System

<sup>2</sup> International Chamber of Commerce

<sup>3</sup> World Health Organization. *Quality Assurance of Pharmaceuticals. A compendium of guidelines and related materials.* Vol 1, 1997.

ally, through blood or vertically (from mother to child). There are 2 known types: HIV-1 and HIV-2.

**HIV Test kit** See diagnostics

**International Price Indicator Guide 2001** A joint publication by the World Health Organization and Management Sciences for Health (MSH). Provides a spectrum of prices from nonprofit drug suppliers, procurement agencies, and ministries of health, based on their current catalogs or price lists.

**Manufacturing license** Granted by national licensing authorities and gives authorization to manufacture a specific product in a specified manufacturing plant.

**MSF** Médecin Sans Frontières – setting up medical humanitarian aid missions around the world since 1971.

**MSH** Management Sciences for Health – private, nonprofit educational and scientific organization working to close the gap between knowledge and action in public health

**MTCT** Mother-to-child transmission (of HIV)

**NHS** National Health Service, UK

**Opportunistic infections<sup>1</sup> (OI)** An illness caused by a microorganism that usually does not cause disease in persons with healthy immune systems, but which may cause serious illness when the immune system is suppressed. Common OI in HIV positive people include *Pneumocystis carinii* pneumonia (PCP), *Mycobacterium avium* complex (MAC) and cytomegalovirus (CMV) infection.

**Palliative care<sup>4</sup>** Pain and symptom management, and psycho-social support for persons living with a terminal illness, as well as for their families and caregivers.

**Pandemic<sup>2</sup>** A widespread disease outbreak affecting the population of an extensive area of the world. See also epidemic.

**Patents<sup>5</sup>** A title granted by the public authorities conferring a temporary monopoly for the exploitation of an invention upon the person who reveals it, furnishes a sufficiently clear and full description of it, and claims this monopoly.

**Protease inhibitor (PI)** Type of antiretroviral drug.

**Proprietary drugs** Drugs that are under patent restrictions belonging to a company, institution, or government.

**Research based pharmaceutical manufacturers** Manufacturers that produce mainly innovative drugs.

**Reverse transcriptase inhibitor** Type of ARV drug. Can be divided into two classes: Nucleoside Reverse Transcriptase Inhibitor (NRTI) and Non Nucleoside Reverse Transcriptase Inhibitor (NNRTI)

**Simple/rapid test** Rely on agglutination/absorption methods and color change, which is visible to the naked eye. They are easy to use and require little or no training and equipment making them particularly suitable for use in Voluntary Counseling and Testing (VCT) centres.

**The World Bank Group** Established in July 1, 1944 it is one of the world's largest sources of development assistance. In Fiscal Year 2001, the institution provided more than US\$17 billion in loans to its client countries.

**TRIPS<sup>6</sup>** Agreement on Trade Related Aspects of Intellectual Property Rights

**UNAIDS** The Joint United Nations Programme on HIV/AIDS (UNAIDS) – by the mid-1990s, it became clear that the epidemic's devastating impact on all aspects of human development, were creating an emergency that would require a greatly expanded United Nations effort. UNAIDS created in 1995 was tasked to coordinate this effort.

**UNFPA** United Nations Population Fund, began operations in 1969. It is the largest international source of population assistance. About a quarter of all population assistance from donor nations to developing countries is channeled through UNFPA.

**UNICEF** United Nations Children's Fund – Created by the United Nations General Assembly in 1946 to help children after World War II in Europe. Headquartered in New York, UNICEF carries out its work through eight regional offices and 126 country offices covering more than 160 countries, territories and areas.

**WHO** World Health Organization – Founded in 1948, the World Health Organization leads the world alliance for Health for All. WHO promotes technical cooperation for health among nations, carries out programmes to control and eradicate disease and strives to improve the quality of human life.

**WIPO** World Intellectual Property Organization – Founded in 1970, WIPO administers 23 international treaties dealing with different aspects of intellectual property protection.

**WTO** World Trade Organization – succeeded the General Agreement on Tariffs and Trade (GATT), first signed in 1947 by 23 countries and aimed at protecting and regulating international trade.

<sup>4</sup> Council on palliative care, Canada

<sup>5</sup> *Globalization and access to drugs—perspectives on the WTO TRIPS Agreement*. Health Economics and Drugs EDM Series 7. WHO, Geneva, 1999

<sup>6</sup> WTO

# 1. Introduction

## 1.1 Background

Improving access to drugs for people living with HIV/AIDS presents a challenge for all countries, and an even greater challenge for the developing nations. Of the more than 40 million people living with HIV/AIDS today, over 95% live in developing countries. Many of them do not have access to even the basic drugs needed to treat HIV-related infections and other conditions. In many of the poorest countries, essential drugs including painkillers, antibiotics, and antituberculosis drugs are in desperately short supply.

The high price of many of the HIV-related drugs offered by common suppliers—especially antiretroviral drugs—is one of the main barriers to their availability in developing countries.<sup>7</sup> These drug prices may be governed by the following factors:

- Patents<sup>8</sup>
- Limited volume
- Limited price competition
- High import duties, tariffs, and local taxes
- High mark-ups for wholesaling, distribution, and dispensing
- Individual country pricing strategies—for example, price fixing by the government, policies of price freedom for new products or even agreements with industry on profit control.

Even where affordable alternatives exist, many decision-makers do not have the information they need to identify those manufacturers that can supply these drugs. They require easier access to comparative prices.

<sup>7</sup> UN agencies and partners are working together to help expand access to the full range of HIV-related drugs, within the context of local health care systems and national HIV/AIDS plans and priorities. A four-part strategy has been adopted to guide and coordinate action on access to HIV-related drugs: (1) rational selection and use of HIV-related drugs (2) affordable prices (3) sustainable financing and (4) reliable health and supply systems.

<sup>8</sup> For further information on Patents and the TRIPS agreement, refer to Annex IV, Further Reading: *Intellectual Property Rights and pharmaceuticals*.

## 1.2 Aim

This report sets out to provide market information that can be used to help procurement agencies make informed decisions on the source of drugs and serve as the basis for negotiating affordable prices. The aim is to help increase access to drugs for people living with HIV/AIDS in developing countries.

The data provided by the manufacturers serves to highlight the multiplicity of suppliers and the variation in price of some essential HIV/AIDS related drugs on the international market. Without this information, there is a risk that low-income countries may be paying more than needed to obtain essential drugs. Price variations are highlighted through the tables and graphs included.

Provision of price information addresses only one barrier to access to drugs in countries with limited resources and, it is appreciated that many other factors will affect the availability of drugs. Some of the other issues that must be considered in relation to the purchase of drugs for HIV/AIDS and related conditions are health infrastructure, human resources, and supply and distribution systems.

## 1.3 Generating the Report

This report is the 3rd in a series of annual reports of sources and prices surveys commenced in 1999. These surveys will be continued and the report will be regularly updated and made available when appropriate.

A survey, carried out from Dec 2001 through to Feb 2002, of over 100 manufacturers in 40 different countries was the basis of this report. Manufacturers were contacted through National Pharmaceutical Associations and Industry websites, and a detailed questionnaire to which a response was prompted within three to four weeks, was sent. The response to the questionnaire was accompanied by a National GMP certificate and associated documents relating to the company and the products. The response rate has increased steadily since the first survey in 1999, as manufacturers are more aware of the price information service and are keen to be a part of the solution to improving access to selected drugs. While all attempts were made to contact as many manufacturers

as possible, the list remains incomplete and is open to further additions. The information will be regularly updated and further reports made available when appropriate.

The UNAIDS Secretariat, UNICEF, MSF, and WHO have worked jointly to conduct the survey, and put together the responses into an easy to use, comprehensive publication, whilst respecting the manufacturers' requests for confidentiality with respect to their individual pricing information.

It must be pointed out however that the companies included in this report have been screened only through the completeness of the documents they have provided. Inclusion in the report does not necessarily constitute pre-qualification or approval of any sort by UNICEF, WHO, UNAIDS or MSF.

### 1.4 Selection of drugs

The report includes antiretroviral drugs, drugs used to treat a range of opportunistic infections, drugs for use in palliative care, drugs for the treatment of HIV/AIDS related cancers and drugs for the management of opioid dependence. It also provides information on a range of test kits available for diagnosis of HIV.

The drugs included in the report were selected based on recommendations from available WHO treatment guidelines. The list is not intended to be exhaustive but to broadly cover the most commonly used drugs or drug categories, in order to ensure that combined with their own resources, purchasing agencies can have at their disposal all drugs required for the comprehensive treatment of HIV/AIDS.

Alternative drugs often are provided as they may be helpful due to:

- Greater cost offset by greater safety, e.g. fluconazole instead of ketoconazole.
- Fewer unwanted adverse effects, e.g. alternatives to amitriptyline

For this survey, paediatric forms have been included wherever possible.

Since October 2000, the report has included information on the availability and price range of antiretroviral drugs for use in HAART. More specific information on treatment schedules can be found at [http://www.who.int/HIV\\_AIDS](http://www.who.int/HIV_AIDS)

This report does not include data on sources and prices of drugs for the treatment of tuberculosis. However, this information is available, for example, on the website of the International Price Indicator Guide 2002.<sup>9</sup>

### 1.5 Pricing

The prices listed generally apply in the context of bulk procurement i.e. the working unit is one batch. Although batch sizes vary greatly among formulations and manufacturers, the following sizes are typical: capsules and tablets in batches of 100,000 to 500,000 (these are not minimum purchases, batches of over 1 million are not uncommon); vials and bottles in batches of 5,000 to 20,000.

Prices are ex-works (EXW) or free-on-board (FOB). They do not include the added cost of items such as freight, insurance, import duties or taxes. For this reason the prices quoted in this report cannot be compared with consumer prices. Many countries continue to impose considerable import duties and taxes on the price of essential drugs. In addition, wholesale and retail mark-ups vary from one country to the other. As a result, the ex-works price is often less than half of the end-price to the consumer.

The prices that are quoted do not reflect any contractual agreements or preferential pricing which manufacturers may have negotiated with individual countries. Information on the offers of donation and price reduction of antiretroviral drugs publicly announced by pharmaceutical manufacturers was not included in this report. The reader is directed to the MSF website <http://www.accessmed-msf.org>.

Price information and exchange rates are subject to variation, and relate to the date at which the offer was made.

### 1.6 Information accompanying each drug

The prices indicated in this report are based on the price data of 1st quarter 2002, unless indicated otherwise.

The following information is provided for each drug:

#### ● Indicative price

##### Unit

The price quoted relates to the unit described, for example, if the unit is "tab" the price quoted is for a single tablet.

##### Maximum price

The maximum price listed represents the highest price among products, with no differentiation among original or generic products.

<sup>9</sup> The International Price Indicator Guide 2002 is a joint publication of Management Sciences for Health and WHO. For more information refer to Annex IV, Websites: *Drug Prices*.



**Minimum price**

The minimum price listed represents the lowest price among products, with no differentiation among original or generic products.

**Median price**

The median price is the middle price, or where there is an even number of prices listed, it is the mean of the two middle numbers. This means that half the prices quoted are above this median price, and the other half are below it.

**25th percentile**

The value point representing the first quartile of quoted prices in ascending order. It is used to give some indication of the dispersion of prices for a given product.

**No < than 25th percentile**

This is used to indicate how many manufacturers can produce the drug below the 25th percentile price range.

- **The number of manufacturers that gave indicative prices**

- **Comparative list price from the UK**

The UK list price represents the public sector consumer price. This is the price set by the National Health Service (NHS) for reimbursement (British National Formulary 42). It cannot be used for direct comparison and is included for information only.

- **The Spanish list price**

This price is ex-works and has been calculated by applying the new margins (as stated in the Royal Decree 286/2001) to the consumer price as published by Consejo General de Colegios Oficiales de Farmacéuticos in Spain ([www.cof.es](http://www.cof.es)). It should be noted that Spanish list prices are generally considered the lowest in Europe. In most cases, the indicative prices listed in the report are a fraction of the comparative prices in the Spanish list.

## 2. Access to quality HIV/AIDS drugs and diagnostics

### Pilot Procurement Quality and Sourcing Project

The **Pilot Procurement, Quality and Sourcing Project** was started by WHO in collaboration with other United Nations Organizations (UNAIDS Secretariat, UNICEF, and UNFPA, supported by the World Bank) in March 2001, as part of a UN—wide strategy to improve access to HIV related treatment.

This pilot project evaluates pharmaceutical products according to WHO recommended standards of quality and compliance with Good Manufacturing Practices. It is the beginning of an ongoing process that will expand as participation of suppliers increases. A list of suppliers whose HIV related medicines have been found acceptable, in principle, for procurement by UN agencies is now available on the web sites of collaborating UN agencies.

As of March 2002, eight companies have been evaluated but another 13 suppliers and a further 100 products are currently under review. The products to be evaluated include antiretroviral drugs, and drugs for the treatment of opportunistic infections and cancers. A list of suppliers evaluated under this pilot project will be produced and regularly updated through the websites of collaborating UN agencies. Interested readers are advised to consult these sites for updated versions.

The survey on *Sources and Prices of Selected Drugs and Diagnostics for People Living with HIV/AIDS* is a pricing service, not a prequalification service. Every effort has been made to ensure the accuracy of the price information presented here and screening of the products included in this survey has been carried out as indicated on page 1. This screening, however, in no way constitutes an in depth review of product quality.

Therefore, products listed in this document should, in relation to purchase, be subject to pre-qualification review as indicated in the WHO **General Procedure for Pre-qualification of Suppliers of Pharmaceutical Products**.

(Please refer to <http://www.who.int/medicines> for more information.)

### Diagnostics

There has been a rapid evolution in diagnostic technology since the first HIV antibody test, an enzyme-linked immunoassay (ELISA), became commercially available in 1985 and a wide range of different HIV antibody tests are now available.

There are three broad categories of HIV antibody tests: simple/rapid tests, ELISA tests, and confirmatory tests. Over recent years, there has been an increase in the availability and demand for simple/rapid assays. These are easy-to-use tests that require little or no equipment and training to perform and can provide accurate same-day results. This makes them particularly suitable for use in voluntary counseling and testing (VCT) centres and in antenatal clinics for prevention of mother-to-child transmission of HIV. When initial tests are reactive for HIV, confirmation of the test results is needed to rule out any false positive results. Information on recommended WHO testing strategies is available in *Weekly Epidemiological Record*, 1997, 72, 81–88.

Since 1988, WHO has provided objective assessments of commercially available test kits. This ongoing evaluation programme is carried out by the WHO Collaborating Centre in the Department of Microbiology, Institute of Tropical Medicine, Antwerp, Belgium and coordinated by the Department of Blood Safety and Clinical Technology, WHO, in collaboration with the UNAIDS Secretariat.

In 1989, WHO established a HIV test kit bulk-procurement scheme, in collaboration with other UN agencies. The aim is to provide national AIDS programmes, blood transfusion services, large hospitals, non-governmental organizations, reference laboratories, UN agencies, donor-supported AIDS projects, and regulatory authorities in developing countries with high quality tests at the lowest possible cost. All HIV tests available through the scheme have been evaluated by the WHO evaluation programme and meet specific, rigorous criteria. WHO negotiates bulk purchase prices for all assays in the scheme directly with the manufacturers, a process that enables WHO to offer a per test cost approximately half that of tests purchased on the open market, which has resulted in substantial cost savings.

Increased access to ARV drugs has also highlighted the need for appropriate and cost effective diagnostic support. Diagnostics support is essential to monitor the progression of the disease, the effectiveness of the treatment and the development of resistance. The existing system for pre-qualification of HIV test kits is being expanded to include technologies used to monitor ARV therapy (CD4 counts and Viral Load) and drug resistance.

A list of diagnostic tests (and their operational characteristics) which have been evaluated by WHO and included in

the HIV Test Kit Bulk Procurement Scheme is attached as Annex II. An overview of available types of CD4 T-cell enumeration technologies are given in Annex III. Please note that this information is regularly updated and available on the WHO website at [www.who.int/bct](http://www.who.int/bct) (follow the links to Key Initiatives, HIV Diagnostics, HIV Test Kit Bulk Procurement Scheme).

**A feedback form can be found at the end of this report (Annex V). All readers are invited to submit their views and comments.**

### 3. Sources & prices of drugs

**Table 1. Anti-infective drugs**

	Manufacturer		Indicative prices, US\$							List prices, US\$	
Antibacterials beta-lactam drugs	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc		UK	Spain
<b>cefixime</b>											
paediatric oral suspension, 100 mg/5 ml; 30 ml	3	2	bottle	5.80	1.85	4.45	3.15	1		20.23	3.49
tablet, 200 mg	4	2	tab	1.31	0.21	0.41	0.28	1		2.45	0.66
<b>ceftriaxone</b>											
powder for injection, 250 mg (as sodium salt) in vial	9	9	vial	2.25	0.01	0.98	0.46	3		3.91	1.99
<b>Other antibacterials</b>											
<b>azithromycin</b>											
capsule, 250 mg (dihydrate)	4	3	caps	0.95	0.12	0.61	0.24	1		3.20	1.02
capsule, 500 mg (dihydrate)	6	5	caps	2.12	0.18	0.83	0.59	1		5.22	—
oral suspension, 200 mg (dihydrate)/5 ml; 15 ml	1	1	bottle	4.15	4.15	4.15	4.15	1		20.23	—
<b>capreomycin*</b>											
<b>ciprofloxacin</b>											
tablet, 250 mg (as hydrochloride)	16	11	tab	0.64	0.01	0.10	0.03	6		1.07	0.22
tablet, 500 mg (as hydrochloride)	1	1	tab	0.17	0.17	0.17	0.17	1		—	—
<b>clarithromycin</b>											
tablet, 250 mg	11	7	tab	3.05	0.11	0.16	0.13	3		2.30	0.75
<b>clindamycin</b>											
capsule, 150 mg	3	3	caps	0.25	0.04	0.08	0.06	1		0.66	0.11
injection, 150 mg (as phosphate)/ml; 2 ml	2	2	amp	1.30	0.84	1.07	0.95	1		—	1.06
<b>cycloserine*</b>	1	1									
<b>erythromycin</b>											
powder for oral suspension, 125 mg/5 ml; 100 ml	2	2	bottle	0.54	0.07	0.31	0.19	1		4.12	1.70
tab, 250mg (as stearate)	8	5	tab	0.07	0.03	0.04	0.03	3		0.19	0.07

\* No price information

### 3. SOURCES & PRICES OF DRUGS

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Other antibacterials</b>										
<b>ofloxacin</b>										
IV infusion, 2 mg/ml (hydrochloride); 100 ml	1	1	bottle	2.00	2.00	2.00	2.00	1	31.40	12.54
tablet, 200 mg	9	6	tab	0.34	0.02	0.17	0.03	3	1.47	0.56
<b>spectinomycin</b>										
powder for injection, 2 g (as hydrochloride) in vial	2		vial	2.16	1.75	1.96	1.85	1	11.77	1.85
<b>sulfadiazine</b>										
tablet, 500 mg	6	6	tab	0.31	0.01	0.03	0.18	2	4.51	0.06
<b>sulfamethoxazole+trimethoprim</b>										
oral suspension, 200+40 mg/5 ml; 100 ml	6	5	bottle	1.18	0.20	0.44	0.34	2	1.60	0.76
tablet, 100+20 mg	3	2	tab	0.01	0.01	0.01	0.01	3	0.21	—
tablet, 400+80 mg	12	8	tab	0.05	0.01	0.01	0.01	8	1.60	0.04
tablet, 800+160 mg	2	2	tab	0.10	0.02	0.06	0.40	1	—	—

11 antibacterial drugs were included in this survey. Ciprofloxacin being the drug with the greatest number of identified manufacturers, followed by sulfamethoxazole+trimethoprim, and clarithromycin. It follows therefore that these are amongst the cheapest antibacterials in the survey. In most cases, except for that of spectinomycin, there is an increase of at least 80% from the minimum price payable to the maximum price payable. This price difference is greatest with ceftriaxone, powder for injection, where care must be taken in selecting the manufacturer in order to find a suitable price. Clindamycin and erythromycin also show modest variation in price amongst manufacturers.

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Antifilarials</b>										
<b>ivermectin</b>										
scored tablet, 6 mg	1	1	tab	0.17	0.17	0.17	0.17	1	—	—
<b>crotamiton*</b>										
<b>lindane*</b>										
<b>Antifungal drugs</b>										
<b>amphotericin B</b>										
powder for injection, 50 mg in vial	2	2	vial	10.78	3.63	7.21	5.42	1	5.28	
<b>fluconazole</b>										
capsule, 150 mg	2	2	caps	0.88	0.09	0.48	0.28	1	—	—
capsule, 200 mg	7	5	caps	1.25	0.20	0.39	0.27	2	13.54	5.77
solution for injection, 2mg/ml; 100 ml	2	2	bottle	6.82	6.82	6.82	6.82	1	41.77	7.69
<b>itraconazole*</b>										
<b>2 1</b>										

\* No price information

**SOURCES AND PRICES OF SELECTED DRUGS AND DIAGNOSTICS FOR PEOPLE LIVING WITH HIV/AIDS**

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Antifungal drugs</b>										
<b>ketoconazole</b>										
tablet, 200 mg	6	4	tab	0.08	0.04	0.06	0.06	4	0.74	0.33
<b>miconazole</b>										
Cream 2%, 30 g tube	3	3	tube	1.01	0.03	0.27	0.15	1	—	0.92
<b>Antihelminthics</b>										
<b>albendazole *</b>										
Chewable tablet, 400 mg	2	1								
<b>Antiprotozoal drugs</b>										
<b>pentamidine</b>										
powder for injection, 200 mg (isetionate) in vial	1	1	vial	6.40	6.40	6.40	6.40	1	—	—
powder for injection, 300 mg (isetionate) in vial	1	1	vial	7.00	7.00	7.00	7.00	1	46.71	7.02
<b>pyrimethamine *</b>										
<b>tinidazole</b>										
tablet, 500 mg	5	3	tab	0.04	0.01	0.02	0.01	2	0.83	0.39
<b>Antivirals</b>										
<b>aciclovir</b>										
powder for injection, 250 mg (as sodium salt)	1	1	vial	18.90	18.90	18.90	18.90	1	26.69	4.02
tablet, 200 mg	9	7	tab	1.00	0.03	0.06	0.04	3	0.29	0.49
tablet, 400 mg	9	7	tab	1.07	0.05	0.09	0.07	3	0.31	—
tablet, 800 mg	10	7	tab	1.72	0.08	0.27	0.19	3	1.97	1.48
<b>cidofovir *</b>										
<b>famciclovir *</b>										
<b>foscarnet Sodium</b>										
IV infusion, 24 mg/ml; 250 ml	1	1	bottle	0.53	0.53	0.53	0.53	1	44.72	28.37
<b>ganciclovir</b>										
powder for injection, 500 mg in vial	1	1	vial	56.26	56.26	56.26	56.26	1	48.48	17.50
<b>imiquimod *</b>										
<b>podofilox *</b>										
<b>valacyclovir *</b>										
<b>valganciclovir *</b>										

\* No price information

### 3. SOURCES & PRICES OF DRUGS

	Manufacturer		Indicative prices, US\$							List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc		UK	Spain
<b>Antivirals – antiretrovirals</b>											
abacavir* (ABC)	2	2									
amprenavir* (APV)											
didanosine (ddl)											
tablet, 100 mg	5	3	tab	0.93	0.18	0.28	0.20	1		2.10	0.97
tablet, 25 mg	3	2	tab	0.13	0.06	0.10	0.08	1		0.68	0.24
syrup, 2 g	1	1	bottle	—	—	—	—	—		—	19.28
lamivudine (3TC)											
tablet, 150 mg	3	3	tab	2.21	0.14	0.23	0.18	1		3.89	2.93
stavudine (D4T)											
caps, 40 mg	6	5	caps	2.78	0.07	0.10	0.08	2		4.38	2.29
zidovudine (AZT/ZDV)											
capsule, 100 mg	8	7	caps	0.81	0.08	0.17	0.12	2		1.70	0.58
capsule, 250 mg	4	4	caps	1.92	0.31	0.47	0.42	1		4.25	1.44
capsule, 300 mg	4	4	caps	2.63	0.25	0.47	0.25	2		—	1.73
injection, 10 mg/ml in 20-ml vial	1	1	amp	12.35	12.35	12.35	12.35	1		34.05	—
oral solution, 50 mg/5 ml; 200 ml	3	3	bottle	5.00	1.50	4.00	2.75	2		17.09	16.90
efavirenz (EFV)											
caps, 200 mg	4	2	caps	2.65	0.45	0.55	0.52	1		3.55	2.69
nevirapine (NVP)											
tablet, 200 mg	5	4	caps	2.63	0.21	0.27	0.23	1		3.99	3.12
syrup, 50 mg/5ml; 100 ml	1	1	bottle	0.14	0.14	0.14	0.14	1		71.90	38.01
indinavir (IDV)											
caps, 400 mg	5	3	caps	1.40	0.32	0.40	0.36	3		1.63	1.36
nelfinavir (NFV)											
caps, 250 mg	2	2	caps	1.22	0.42	0.82	0.52	1		1.53	1.02
saquinavir (SQV)											
caps, 200 mg	1	1	caps	0.48	0.48	0.48	0.48	1		0.83	0.93
ritonavir* (RTV)											
<b>Antiretrovirals – Combinations</b>											
3TC/D4T/NVP											
tablet, 150/40/200 mg	1	1	tab	0.49	0.49	0.49	0.49	1		—	—
3TC/ABC/ZDV*											

\* No price information

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Antiretrovirals – Combinations</b>										
lopinavir (LPV)/RTV*										
ZDV/3TC										
tablet, 300 mg/150 mg	3	3	tab	4.26	0.36	0.69	0.53	1	8.15	4.53

12 antiretroviral drugs for which price information was provided are included in the survey, 2 of which are combinations. Generally, maximum prices are highest for NNRTIs and NRTIs. The smallest variation between maximum and minimum price payable if found with didanosine, 25 mg tablets, where the min price is only 53% lower than the max price. In the case of stavudine, 40 mg caps, care must be taken when selecting a manufacturer as the prices vary by almost 100%.

**Table 2. Antineoplastic drugs**

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Cytotoxic drugs</b>										
<b>bleomycin</b>										
powder for injection, 15 mg (as sulfate) in vial	1	1	vial	13.17	13.17	13.17	13.17	1	23.24	11.09
<b>calcium folinate (leucovorin)</b>										
tablet, 15 mg	2	2	tab	0.30	0.03	0.17	0.10	1	4.29	0.54
<b>doxorubicine HCl</b>										
powder for injection, 10 mg in vial	3	3	vial	14.65	2.63	12.66	7.65	1	26.71	5.26
powder for injection, 50 mg in vial	3	3	vial	70.43	12.57	53.13	32.85	1	133.53	25.11
<b>liposomal doxorubicine HCl</b>										
conc for IV infusion, 2 mg/ml; 10 ml	1	1	vial	37.13	37.13	37.13	37.13	1	586.76	346.07
<b>etoposide</b>										
injection, 20 mg/ ml in 5 ml ampoule	3	3	amp	31.45	1.56	3.96	2.76	1	14.21	6.32
<b>methotrexate</b>										
powder for injection, 50 mg (as sodium salt) in vial	2	2	vial	5.71	4.25	4.98	4.62	1	3.74	2.28
tablet, 2.5 mg	2	2	tab	0.14	0.06	0.10	0.08	1	0.16	0.04
<b>vinblastine</b>										
powder for injection, 10 mg (sulfate) in vial	2	2	vial	18.87	10.18	14.53	12.35	1	20.19	—
<b>vincristine</b>										
powder for injection, 1 mg (sulfate) in vial	2	2	vial	4.08	1.20	2.64	1.92	1	—	5.30
powder for injection, 5 mg (sulfate) in vial	1	1	vial	5.39	5.39	5.39	5.39	1	—	—

\* No price information



### 3. SOURCES & PRICES OF DRUGS

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Cytotoxic drugs</b>										
vinorelbine *										

Antineoplastic drugs are the most expensive class of drugs and the ones with the least number of manufacturers located through the survey. There is therefore less variation between the highest and lowest price as in most cases only 1 or 2 manufactures were identified.

**Table 3. Psychotherapeutic drugs**

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Drugs used in depressive disorders</b>										
amitriptyline										
tablet, 25 mg	4	4	tab	0.06	0.01	0.01	0.01	3	0.04	0.03
fluoxetine										
caps, 20 mg	10	8	caps	0.34	0.01	0.09	0.06	3	0.37	0.30

**Drugs used in generalized anxiety and sleep disorders**

lorazepam										
tablet, 1 mg	4	3	tab	0.01	0.01	0.01	0.01	4	0.06	0.02
methotrimiprazine/levomepromazine *										

**Table 4. Analgesics**

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Opioid analgesics</b>										
codeine										
tablet, 30 mg	2	2	tab	0.05	0.04	0.04	0.04	2	0.07	0.08
tablet, 25 mg	1	1	tab	0.06	0.06	0.06	0.06	1	—	—
methadone *										
morphine										
injection, 10 mg (hydrochloride) in 1-ml ampoule	1	1	vial	0.22	0.22	0.22	0.22	1	—	—
oral solution (hydrochloride) 10 mg/5 ml*										
oral solution (sulphate) 10 mg/5 ml*										
tab, 10 mg sulphate*										

\* No price information

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Opioid analgesics</b>										
<b>pethidine</b>										
inj, 50 mg (hydrochloride)/ml in 2-ml ampoule	1	1	amp	0.29	0.29	0.29	0.29	1	1.00	—

**Drugs used in the treatment of opioid dependence**

<b>buprenorphine *</b>										
<b>naltrexone HCl</b>										
tablet, 50 mg	3	3	tab	0.91	0.67	0.90	0.79	1	2.17	1.68

**Table 5. Gastrointestinal drugs**

	Manufacturer		Indicative prices, US\$						List prices, US\$	
	N° of manuf	N° of countries	unit	max	min	median	25th perc	No < than 25th perc	UK	Spain
<b>Antacids and other antilucer drugs</b>										
<b>omeprazole</b>										
caps, 10 mg	3	3	caps	0.24	0.14	0.17	0.15	1	0.97	0.19
caps, 20 mg	16	11	caps	1.56	0.01	0.17	0.12	4	1.46	0.19
caps, 40 mg	2	1	caps	0.49	0.03	0.26	0.15	1	2.91	0.19
powder for IV infusion, 40 mg (sodium salt) in vial; 100 ml	1	1	vial	3.35	3.35	3.35	3.35	1	7.43	6.83

**Antiemetic drugs**

<b>dimenhydrinate</b>										
tablet, 50 mg	4	4	tab	0.01	0.06	0.02	0.01	2	—	0.09
<b>metoclopramide</b>										
injection 5 mg/ml	2	2	amp	0.12	0.07	0.10	0.08	1	0.64	0.12
tablet, 10 mg (as hydrochloride)	7	7	tab	0.24	0.01	0.01	0.01	5	0.04	0.04
<b>prochlorperazine</b>										
tablet, 10 mg	1	1	tab	0.02	0.02	0.02	0.02	1	—	—
tablet, 5 mg	1	1	tab	0.01	0.01	0.01	0.01	1	0.07	—

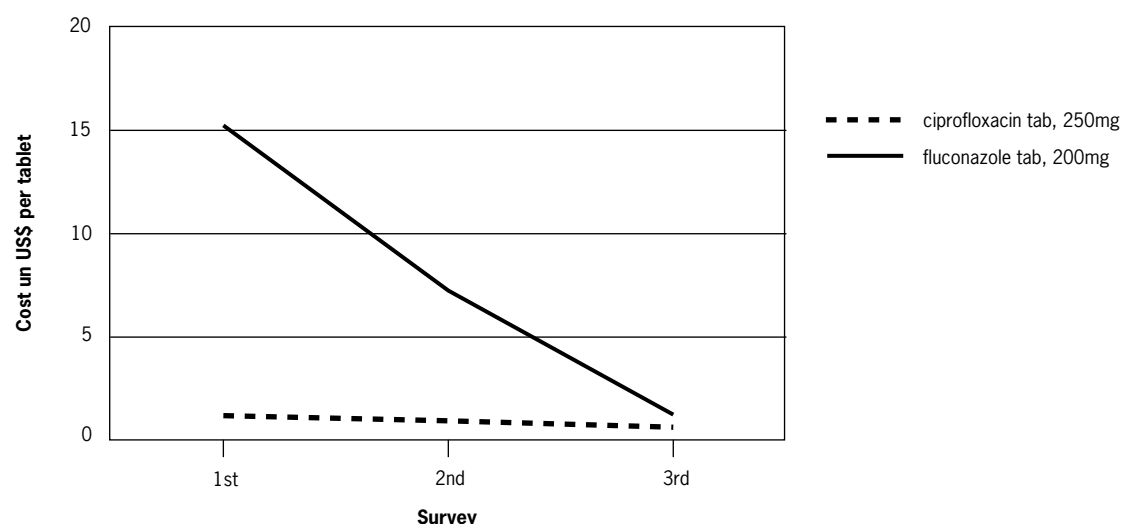
**Laxatives**

<b>docusate sodium *</b>										
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\* No price information

## 4. Variation in price between surveys

**Figure 1. Variations in the maximum price quoted for ciprofloxacin, and fluconazole between the 1st survey (2000) 2nd survey (2001) and 3rd survey (2002)**



There is a considerable decrease in the price of fluconazole between surveys, as shown in Figure 1 above, whereas ciprofloxacin has only shown a very slight decrease in price.

**Table 6. Variation in the price of ciprofloxacin and fluconazole**

ciprofloxacin, tab, 250 mg	max	min	med	25th perc	no<25th perc
1st Survey	1.20	0.02	0.13	0.05	3
2nd Survey	0.95	0.02	0.10	0.04	5
3rd Survey	0.64	0.01	0.1	0.03	6
fluconazole, caps, 200 mg	max	min	med	25th perc	no<25th perc
1st Survey	15.24	8.42	14.1	11.26	1
2nd Survey	7.25	0.2	0.36	0.24	2
3rd Survey	1.25	0.2	0.39	0.27	2

## ANNEX IA

# List of drugs by therapeutic group & manufacturers

### Anti-infective drugs

MANUFACTURER CODE**	
<b>Antibacterials – beta-lactam drugs</b>	
cefixime	AUROBINDO; CIPLA; EAS-SURG; FARMOZ; LEK; MEDOCHEM; REMEDICA
ceftriaxone	AUROBINDO; BILIM; COMBINO; MEDOCHEM; MEPHA; STRIDES; PANPHARMA; RANBAXY; XIAN
<b>Antibacterials – other</b>	
azithromycin	AUROBINDO; EAS-SURG; FARMOZ; LAPRIN; VITA; LĚČIVA; LYKA; STRIDES; XIAN
capreomycin***	
ciprofloxacin	AJANTA; ALPHARMA; APOTEX; AUROBINDO; BAYER; CINFA; EAS-SURG; FARMOZ; GEN DRUGS; INKEYSA; VITA; MEDOCHEM; MEPHA; STRIDES; RANBAXY; REMEDICA; XIAN
clarithromycin	AJANTA; ALPHARMA; AUROBINDO; BILIM; EAS-SURG; LEK; LYKA; MEDOCHEM; STRIDES; RANBAXY; REMEDICA; XIAN
clindamycin	BILIM; CHEPHASAAR; COMBINO; EAS-SURG; LEK; STRIDES; XIAN
cycloserine	EAS-SURG
erythromycin	AJANTA; AUROBINDO; BOUCHARA; GEN DRUGS; EAS-SURG; LAPRIN; LYKA; MEDOCHEM; STRIDES; REMEDICA
ofloxacin	AJANTA; EAS-SURG; FARMOZ; LĚČIVA; LYKA; STRIDES; RANBAXY; REMEDICA; XIAN
rifabutin***	
spectinomycin	XIAN
sulfadiazine	CP PHARMA; EAS-SURG; ECOBI; FURP; GEN DRUGS; REIGJ; XIAN
trimethoprim/sufamethoxazole	AJANTA; ALPHARMA; APOTEX; AUROBINDO; EAS-SURG; ECOBI; GEN DRUGS; LACHIFARMA; LAPRIN; LYKA; STRIDES; RANBAXY; REMEDICA; XIAN
<b>Antifilarials</b>	
ivermectin	XIAN
crotamiton	EAS-SURG
lindane	EAS-SURG
<b>Antifungal drugs</b>	
amphotericine B	COMBINO; XIAN
fluconazole	BILIM; CIPLA; EAS-SURG; VITA; LĚČIVA; LYKA; STRIDES; RANBAXY; REMEDICA; THAI GOV; XIAN

\*\* See Annex I B for Index to Manufacturers; \*\*\* No information on manufacturers

**ANNEX IA. LIST OF DRUGS BY THERAPEUTIC GROUP & MANUFACTURERS**

<b>MANUFACTURER CODE**</b>	
<b>Antifungal drugs continued</b>	
itraconazole	EAS-SURG; STRIDES
ketoconazole	BILIM; EAS-SURG; GEN DRUGS; LAPRIN; MEDOCHEM; STRIDES; REMEDICA; THAI GOV
miconazole	APOTEX; EAS-SURG; ECOBI; LOMAPHARM; LYKA;
<b>Anthelmintics – Intestinal anthelmintics</b>	
albendazole	CIPLA; EAS-SURG; STRIDES; REMEDICA
<b>Antiprotozoal drugs</b>	
pentamidine	COMBINO; FILAXIS
pyrimethamine	EAS-SURG; STRIDES
tinidazole	AJANTA; GEN DRUGS; EAS-SURG; MEDOCHEM; STRIDES; REMEDICA
<b>Antivirals</b>	
aciclovir	ALPHARMA; APOTEX; CINFA; COMBINO; CP PHARMA; EAS-SURG; ECOBI; FILAXIS; GEN DRUGS; LAPIN; LOMAPHARM; MEDOCHEM; STRIDES; RANBAXY; REMEDICA
cidofovir***	
famciclovir***	
foscarnet sodium	XIAN
ganciclovir	FILAXIS; STRIDES
imiquimod***	
podofilox	EAS-SURG
valacyclovir***	
valganciclovir***	
<b>Antivirals – Antiretrovirals</b>	
abacavir (ABC)	EAS-SURG; FILAXIS
amprenavir (APV)***	
didanosine (ddl)	APOTEX; AUROBINDO; CIPLA; EAS-SURG; FILAXIS; STRIDES
efavirenz (EFV)	AUROBINDO; CIPLA; FILAXIS; STRIDES
indinavir (IDV)***	AUROBINDO; CIPLA; EAS-SURG; FILAXIS; STRIDES; RANBAXY
lamivudine (3TC)	EAS-SURG; FILAXIS; STRIDES; RANBAXY; THAI GOV
nelfinavir (NFV)	AUROBINDO; EAS-SURG; FILAXIS; STRIDES
nevirapine (NVP)	CIPLA; FILAXIS; EAS-SURG; STRIDES; RANBAXY; THAI GOV
ritonavir (RTV)***	
saquinavir (SQV)	AUROBINDO; STRIDES
stavudine (D4T)	APOTEX; AUROBINDO; EAS-SURG; FILAXIS; STRIDES; RANBAXY; THAI GOV
zalcitabine (ddC)	FILAXIS

\*\* See Annex I B for Index to Manufacturers; \*\*\* No information on manufacturers

MANUFACTURER CODE**	
<b>Antivirals – Antiretrovirals continued</b>	
zidovudine (AZT/ZDV)	APOTEX; AUROBINDO; COMBINO; EAS-SURG; FILAXIS; FURP; STRIDES; RANBAXY; THAI GOV
<b>Antiretrovirals – Combinations</b>	
3TC/ D4T/ NVP	CIPLA; EAS-SURG; STRIDES
3TC/ ABC/ ZDV***	
LPV/ RTV***	
ZDV/ 3TC	EAS-SURG; FILAXIS; STRIDES; RANBAXY; THAI GOV

## Antineoplastic drugs

<b>Cytotoxic drugs</b>	
bleomycin	FILAXIS
calcium folinate	ECOBI; FILAXIS; MEDAC
doxorubicine HCl	FILAXIS; MEDAC; XIAN
liposomal doxorubicine	XIAN
etoposide	CIPLA; FILAXIS; XIAN
methotrexate	CIPLA; FILAXIS; MEDAC; XIAN
vinblastine	FILAXIS; XIAN
vincristine	FILAXIS; XIAN
vinorelbine***	

## Psychotherapeutic drugs

<b>Drugs used in mood disorders</b>	
<i>Drugs used in depressive disorders</i>	
amitriptyline	EAS-SURG; LAPRIN; REMEDICA; THAI GOV; XIAN
fluoxetine	APOTEX; BIOGLAN; CINFA; COMBINO; EAS-SURG; LĚČIVA; LEK; MEDOCHEM; RANBAXY; REMEDICA; XIAN
<b>Drugs used in generalized anxiety and sleep disorders</b>	
lorazepam	EAS-SURG; LEK; LOMAPHARM; MEDOCHEM; REMEDICA
<i>Drugs used in psychotic disorders</i>	
methotrimeprazine/ levomepromazine***	

## Analgesics

<b>Opioid analgesics</b>	
codeine	BOUCHARA; CP PHARMA; EAS-SURG; LOMAPHARM

\*\* See Annex I B for Index to Manufacturers; \*\*\* No information on manufacturers

MANUFACTURER CODE**	
<b>Opioid analgesics continued</b>	
methadone***	
morphine	EAS-SURG; RENAUDIN
pethidine	RENAUDIN
<b>Drugs used in the treatment of opioid dependence</b>	
buprenorphine	
naltrexone HCl	FARMOZ; LACHIFARMA; MEDOCHEM
<b>Gastrointestinal drugs</b>	
<b>Antacids and other antiulcer drugs</b>	
omeprazole	AJANTA; APOTEX; AUROBINDO; CINFA; EAS-SURG; FARMOZ; GEN DRUGS; INKEYSA; KUW SAU; LĚČIVA; LEK; LYKA; MEPHA; STRIDES; REMEDICA; XIAN
<b>Antiemetic drugs</b>	
dimenhydrinate	APOTEX; CINFA; THAI GOV; XIAN
metoclopramide	AJANTA; ALPHARMA; APOTEX; EAS-SURG; GEN DRUGS; LOMAPHARM; STRIDES; REMEDICA; THAI GOV; XIAN
prochlorperazine	EAS-SURG; LĚČIVA; REMEDICA
<b>Laxatives</b>	
docusate sodium	STRIDES

\*\* See Annex I B for Index to Manufacturers; \*\*\* No information on manufacturers

## ANNEX IB

# Index of manufacturers

Supplier Code	Company name Address	Tel	Fax	Email Website	Comments / Drugs offered
1. AJANTA	Ajanta Pharma Ltd Ajanta House 98 Govt Ind Area Charkop, Kandivli (W) Mumbai 400 067 India	+91-22 868 3625/ 868 3718/ 868 3945	+91-22 868 3930/ 868 2845	info@ajantapharma.com www.ajantapharma.com	ciprofloxacin, clarithromycin, erythromycin, ofloxacin, trimethoprim/sulfamethoxazole, tinidazole, metoclopramide, omeprazole
2. ALPHARMA	Alpharma Jl. Raya Bogor Km 28 Jakarta 13710 Indonesia	+62-21 8710311	+62-21 8710044	Henry.prasetya@alpharma.no www.accessiblemedicine.no	ciprofloxacin, clarithromycin, trimethoprim/ sulfamethoxazole, aciclovir, metoclopramide
3. APOTEX	Apotex Protein, SA de CV Anil No 865 Granjas Mexico, Iztacalco 8400 Mexico D.F.	+52-5556 57 0888 ext 222	+52-5556 57 0986	Rjimenez@apotex.com.mx www.apotex.com.mx	fluoxetine, acyclovir, ciprofloxacin, ddl, D4T, AZT, trimethoprim/sulfamethoxazole, miconazole, dimenhydrinate, metoclopramide, omeprazole
4. AUROBINDO	Aurobindo Pharma Ltd. Plot No. 2, Mairivihar Ameerpet, Hyderabad 500 038 India	+91-40 6631083	+91-40 3746833	Info@aurobindo.com www.aurobindo.com	cefixime, ceftriaxone, azithromycin, ciprofloxacin, clarithromycin, erythromycin, trimethoprim/ sulfamethoxazole, AZT, D4T, ddl, EFV, IDV, NFV, SQV, omeprazole
5. BAYER	Bayer AG D-51368 Leverkusen Bayerwerk Germany	+49-214 30 24558	+49-214 30 58075	Michaela.oxfort.mo@bayer-ag.de www.bayer.de	ciprofloxacin
6. BILIM	Bilim Pharmaceuticals Ayazağaköyü Yolu 80670 Maslak Istanbul Turkey	+90-285 2290 ext 370	+90-212 2869 472	Info@bilimpharma.com www.bilimpharma.com	ceftriaxone, clarithromycin, clindamycin, fluconazole, ketoconazole



Supplier Code	Company name Address	Tel	Fax	Email Website	Comments / Drugs offered
7. BIOGLAN	Bioglan Generics Ltd 1, The Cam Centre, Wilbury Way Hitchin, Herts SG4 0TW UK	+44-1462 438444	+44-1462 438279	John.josephs@bioglan.com www.bioglan.com	fluoxetine
8. BOUCHARA	Bouchara Recordati 68 Rue Marjolin F-92 300 Levallois Perret France	+33-1 45 19 1000	+33-1 42 70 1696	Jp.sabater@bouchara- recordati.fr	erythromycin, codeine
9. CHEPHASAAR	Chephasaar GmbH Postfach 4249, Mülhstraße 50 St. Ingebert D-66386 Germany	+49-68 94 9710	+49-68 94 971275	Uta.becker@chephasaar.de	clindamycin
10. CINFA	Cinfa, S.A. Olaz-Chipi, 10-Poligono Areta. 31620 Huarte. Pamplona Spain	+34-948 335102	+34-948 330367	Bsanado@cinfa.com/ arrieta@ cinfa.com www.cinfa.com	ciprofloxacin, aciclovir, fluoxetine, diminihydrinate, omeprazole
11. CIPLA	Cipla Ltd Mumbai Central Mumbai 400 008 India	+91-22 308 2891/ 309 5521	+91-22 307 0013/ 307 0385	Ciplaexp@bom8.vsnl.net prc@cipla.com www.cipla.com	etoposide, methotrexate, cefixime, fluconazole, albendazole, didanosine, efavirenz, indinavir, nevirapine, 3TC/D4T/NVP combination
12. COMBINO	Combino Pharm S.L. Carrer Fructuos Gelabert, 6-8 Edificio Contana 2 S. Joan Despi E-08970 Barcelona Spain	+34-93 480 8833	+34-93 480 8832	Eonandia@combino-pharm.es www.combino-pharm.es	aciclovir, ceftriaxone, zidovudine, clindamycin, amphotericine B, pentamidine, fluoxetine
13. CP PHARMA	C P Pharmaceuticals Ash Road North Wrexham Industrial Estate Wrexham LL13 9UF UK	+44-1978 661 261	+44-1978 660 130	Mail@ccpharma.co.uk http://ccpharma.co.uk	codeine, aciclovir, sulfadiazine

Supplier Code	Company name Address	Tel	Fax	Email Website	Comments / Drugs offered
14. EAS-SURG	Eastern Surgical Company 3791, Dayaganj New Delhi, 110002 India	+91-3274430/ 3273791	+91-3280755/ 3267449	Escoanand@vsnl.com	cefixime, azithromycin, ciprofloxacin, clarithromycin, clindamycin, cycloserine, erythromycin, ofloxacin, sulfadiazine, trimethoprim/sulfamethoxazole, ivermectin, crotafimidol, lindane, fluconazole, itraconazole, ketoconazole, miconazole, albendazole, pyrimethamine, tinidazole, 3TC, abacavir, AZT, D4T, ddI, IDV, NFV, NVP, 3TC/d4T/NVP, AZT/3TC, aciclovir, podofilox, ametryptiline, fluoxetine, lorazepam, codeine, morphine, metoclopramide, prochlorperazine, omeprazole
15. ECOBI	Ecobi Farmaceuti sas Via Enrico Bazzano, 26 Ronco Scrivia I-16019 Genova Italy	+39-010 935280/ 82	+39-010 9350679	Ecobi@aleph.it www.ecobi.com	trimethoprim/sulfamethoxazole, miconazole, aciclovir, sulfadiazine, calcium folinate
16. FARMOZ	Farmoz-Sociedade Technico-Medicinal, S.A. R. Prof. Henrique de Barros Edifício Sagres, 3ºA 2685 Prior Velho Portugal	+21-942 00 81	+21-941 08 39	Secadam.techimede@mail.telepac.pt	cefixime, azithromycin, ciprofloxacin, ofloxacin, naltrexone HCL, omeprazole
17. FILAXIS	Laboratorios Filaxis S.A. Panama 2121 (B1640DKC) Martinez – Buenos Aires Argentina	+54 11-4513 8009	+54 11-4513 8038	Liliana.b.mendez@serono.com www.filaxis.com	bleomycin, calcium folinate, doxorubicin HCl, etoposide, methotrexate, vinblastine, vincristine, pentamidine, 3TC, ABC, AZT, D4T, ddC, ddI, EFV, IDV, NFV, NVP, AZT/3TC, aciclovir, ganciclovir
18. FURP	FURP Rua Endres, 1800, Itapegica Guarulhos SP 07043-902 Brazil	+55-11 6423 6005	+55-11 6423 6202	Sergio_ferreira@furp.com.br www.furp.com.br	sulfadiazine, zidovudine
19. GEN DRUGS	General Drugs House Co, Ltd 2-4 Lard Prao Soi 82 Wangthonglanth, Bangkok 10310 Thailand	+66-2 530 0590	+66-2 530 1228	Gendrugs@samarts.com	ciprofloxacin, erythromycin, sulfadiazine, trimethoprim/sulfamethoxazole, ketoconazole, tinidazole, aciclovir, metoclopramide, omeprazole

Supplier Code	Company name Address	Tel	Fax	Email Website	Comments / Drugs offered
20. INKEYSA	INKEYSA, S.A. C/Juan XXIII, 15-19,3 planta Esplugas de Llobregat 08950 Barcelona Spain	+34-93 480 9911	+34 93 372 6551	Afenesr.inkeysa@nexo.es www.inkeysa.es	ciprofloxacin, omeprazole
21. KUW-SAU	Kuwait Saudi Pharmaceutical Industries Co. P.O.Box 5512 Safat 13056 Kuwait	+965-4745012/3	+965-4745361	Kspico@ncc.moc.kw	omerprazole
22. LACHIFARMA	Lachifarma, SRL S.S. 16 Zona Industrial 73010 Zollino (LE) Italy	+39-0836 600661	+39-0836-600662	Info@lachifarma.com www.lachifarma.com	trimethoprim/sulfamethoxazole, naltrexone
23. LAPRIN	Laboratorios Laprin, S.A. Km. 16.5 Carretera a El Salvador entrada a Llanos de Arrazola Fraijanes Guatemala	+502-634 1921 to 28 +502-637 4562 to 68	+502-634-1929	Laprin@laprin.com www.laprin.com	azithromycin, erythromycin, trimethoprim/ sulfamethoxazole, ketoconazole, aciclovir, amitriptyline
24. LĚČIVA	Lěčiva, Inc Dolní Měcholupy 130 10237 Praha 10 Czech Republic	+42-02 67 24 24 52	+42-02 67 24 30 44	Macalkova@leciva.cz www.leciva.cz	azithromycin, ofloxacin, fluconazole, fluoxetine, prochlorperazine, omeprazole
25. LEK	Lek Pharm.& Chemical Company d.d. Verovškova 57 SI – 1526 Ljubljana Slovenia	+386-15802534	+386-15683526	Sa_a.bavec@lek.si www.lek.si	ceftriaxone, clarithromycin, clindamycin, fluoxetine, lorazepam, omeprazole
26. LOMAPHARM	Lomapharm Postfach 1210, Langes Feld 5 Emmertal D-31860 Germany	+49-5155 63257	+49-5155 63256	Lomapharm@t-online.de www.lomapharm.de	codeine, aciclovir, lorazepam, metoclopramide, miconazole

Supplier Code	Company name Address	Tel	Fax	Email Website	Comments / Drugs offered
27. LYKA	Lyka Labs 77, Nehru Road Vile Parle-East, Mumbai-400 099 India	+91-22 6105900/ 616754	+91-22 6111024	Lykaborn@vsnl.com www.lykalabs.com	azithromycin, clarithromycin, erythromycin, ofloxacin, trimethoprim/sulfamethoxazole, fluconazole, miconazole, omeprazole
28. MEDAC	Medac GmbH Theaterstraße 6 D-22880 Wedel Germany	+49-41 03 8006 147	+49-41 03 8006 153	d.rehder@medac.de www.medac.de	calcium folinate, doxorubicin, methotrexate
29. MEDOCHEM	Medochemie Ltd Constantinopol Street 3011 Limassol Cyprus	+357-258 67600	+357-255 60863	Office@medochemie.com www.medochemie.com	cefixime, ceftriaxone, ciprofloxacin, clarithromycin, erythromycin, ketoconazole, tinidazole, aciclovir, flouxetine, lorazepam, naltrexone
30. MEPHA	Mepha Ltd Dornacherstrasse 114 CH-4147 AESCH Switzerland	+41-61 705 4343	+41-61 7054338	Hanspeter.baumann@mepha.ch www.mepha.com	ceftriaxone, ciprofloxacin, omeprazole
31. PANPHARMA	PANPHARMA Z.I. Clairay 35133 Fougères France	+33-2 9997 9212	+33-2 9997 9127	Mlebellego@panpharma.fr www.panpharma.fr	ceftriaxone
32. RANBAXY	Ranbaxy Europe Ltd 95, Park Lane Mayfair London W1K 7TE UK	+44-20 7409 0075	+44-207409 1469	Ndouthwaite@ranbaxy.co.uk www.ranbaxy.com	ceftriaxone, ciprofloxacin, clarithromycin, ofloxacin, trimethoprim/sulfamethoxazole, fluconazole, 3TC, AZT, D4T, IDV, NVP, ZDV/3TC, aciclovir, fluoxetine
33. REIGJ	Grupo Reig Jofré C/ Lopez de Hoyos, 188, 3A 28002 Madrid Spain	+34-914153801	+34-915191849	Gerardo@reigjofre.com www.reigjofre.com	sulfadiazine
34. REMEDICA	Remedica Ltd Limassol Ind Estate, Aharon St PO Box 51706 3508 Limassol Cyprus	+357-25393444	+357-25390192	Remedica@cytanet.com.cy	cefixime, ciprofloxacin, clarithromycin, erythromycin, ofloxacin, trimethoprim/sulfamethoxazole, fluconazole, ketoconazole, albendazole, tinidazole, aciclovir, amitriptyline, fluoxetine, lorazepam, metoclopramide, prochlorperazine, omeprazole

Supplier Code	Company name Address	Tel	Fax	Email Website	Comments / Drugs offered
35. RENAUDIN	Laboratoire Renaudin 125, Bureaux de la Colline F-92213, Saint-Cloud Cedex France	+33-1 41 12 0382	+33-1 41 12 0377	Fpetit@labo-renaudin.com	morphine, pethidine
36. STRIDES	M/s Strides Acrolab Ltd Bilekahalli Bannerghatta Road Bangalore 560 076 India	+91-80 6581 343/44/46	+91-80 6584 330 +91-80 6583 538	info@stridesarco.com www.stridesarco.com	ceftriaxone, azithromycin, ciprofloxacin, clarithromycin, clindamycin, erythromycin, ofloxacin, trimethoprim/sulfamethoxazole, fluconazole, itraconazole, ketoconazole, albendazole, pyrimeth- amine, tridazole, 3TC, AZT, D4T, ddl, EFV, IDV, NVP, NVP, SQV, 3TC/D4T/NVP, AZT/3TC, aciclovir, ganciclovir, docustate Na, metoclopramide, omeprazole
37. THAI GOV	The Government Pharmaceutical Organization 75/1 Rama VI Rd. Ratchathewi, Bangkok Thailand	+662-248 1482	+662-248 1488	Sukhum@health.moph.go.th www.moph.go.th/gpo	fluconazole, ketoconazole, 3TC, AZT, D4T, NVP, ZDV/ 3TC, amitriptyline, dimenhydrinate, metoclopramide
38. VITA	Laboratorios Vita, S.A. Avda. Barcelona, 69 E-08970 Barcelona Spain	+34-93475 9600	+34-93373 3020	Tjaursch@vita-invest.com www.grupovita.com	azithromycin, ciprofloxacin, fluconazole
39. XIAN	China Xi'an International Economic Technical Trade Corp 118 Dong Da Jie, Xian Shaanxi 710001 China	+86-29 74 54 523	+86-29 74 58 863	Howes@ihw.com.cn pharmachem@ihw.com.cn	doxorubicin, liposomal doxorubicin, etoposide, methotrexate, vinblastine, vincristine, ceftriaxone, azithromycin, ciprofloxacin, clarithromycin, clindamycin, ofloxacin, spectinomycin, sulfadiazine, trimethoprim/sulfamethoxazole, ivermectin, amphotericine B, fluconazole, foscarnet sodium, amitriptyline, fluoxetine, dimenhydrinate, metoclopramide, omeprazole

ANNEX IC

Country location of participating manufacturers

6	STRIDES										India	China					Indonesia	Kuwait	Thailand
5	LYKA																		
4	VITA										REIGJ								
3	MEDAC																		
3	RENAU- DIN																		
3	LOMA- PHARM																		
3	CIPLA										INKEY SA								
3	RAN- BAXY																		
2	CP PHARMA										COM- BINO								
2	AURO BINDO																		
2	THAI GOV																		
1	AJANTA																		
1	ALPHAR- MA																		
1	KUW- SAU																		
1	GEN DRUGS																		
1	XIAN																		
1	BIO- GLAN																		
1	BILIM																		
1	MEPHA																		
1	CINFA																		
1	LEK																		
1	FARMOZ																		
1	E COBI																		
1	LACHI- FARMA																		
1	CHEPHA- SAAR																		
1	BOU- CHARA																		
1	REMED- ICA																		
1	MEDO- CHEM																		
1	LAPRIN																		
1	APOTEX																		
1	FURP																		
1	FILAXIS																		
1	LĚČIVA																		
1	PAN- PHARMA																		
1	BAYER																		
1	E COBI																		
1	LACHI- FARMA																		
1	FARMOZ																		
1	LEK																		
1	CINFA																		
1	MEPHA																		
1	BILIM																		
1	BIO- GLAN																		
1	XIAN																		
1	AJANTA																		
1	ALPHAR- MA																		
1	KUW- SAU																		
1	GEN DRUGS																		

North and South America

Eastern, Central and Western Europe

Africa, Middle East and Asia

## Geographical distribution of participating manufacturers



## ANNEX II

# WHO bulk procurement list for HIV tests, 2000

### ELISAs

Assay name (Manufacturer)	Order Code	HIV type	Antigen	Sample type	Sensitivity %	Specificity %	Equipment requirements	Storage temp (°C)	Cost/test (US \$) <sup>10</sup>	No. of tests per kit
ENZYGNOST ANTI-HIV 1/2 Plus (Dade Behring AG)	OQFK13	HIV-1+2+0	Recombinant proteins	S, P	100.0	99.7	A, B, C, D, E, F, H	2-8	0.53	192 <sup>11</sup>
Enzygnost/TMB reagent kit	OQFK21 OUVP								0.45 0.0	960
DETECT HIV I+II (Biochem)	RHD-902B RHD-900B	HIV-1+2	Synthetic peptides	S, P	100	97.4	A, B, C, D, E, F, H	2-8	0.43 0.43	96 192
HIV – TETRA, HIV-1+2 (Biotest)	807008	HIV-1+2	Recombinant proteins	S, P	100	99.1	A, B, C, D, E, F, H	2-8	0.50	480
RECOMBIGEN HIV-1/2 EIA (Trinity Biotech plc)	960401A	HIV-1+2	recombinant proteins	S, P	100.0	100.0	A, B, C, D, E, F, H	2-8	0.45	192
INNOTEST HIV-1/HIV-2 Ab s.p. (Innogenetics)	K1054 K1055	HIV-1+2+0	recombinant proteins, synthetic peptides	S, P	100.0	98.8	A, B, C, D, E, F, H	2-8	0.45 0.45	96 480
HIV-Chex (SEARO ONLY) (Xcyton)		HIV-1+2	synthetic peptides	S, P	100	100	A, B, C, D, E, F, H	2-8	0.42	96
HIV EIA (Labysystems)	6111011 6111013	HIV-1+2	synthetic peptides	S, P	100.0	99.4	A, B, C, D, E, F, H	2-8	0.45 0.40	96 960
ICE HIV 1.0.2 EIA (Murex/Abbott)	WR100A WR200A	HIV-1+2+0	recombinant proteins, synthetic peptides	S, P	100.0	99.4	A, B, C, D, E, F, H	2-8	0.45 0.45	96 480
VIRONOSTIKA HIV UNIFORM II plus O (Organon Teknika)	84017 84018	HIV-1+2+0	recombinant proteins, synthetic peptides	S, P	100.0	100.0	A, B, C, D, E, F, H	2-8	0.45 0.45	192 576

<sup>10</sup> Please note that this price does not include freight nor other taxes.

<sup>11</sup> When ordering the 192 test kits it is necessary to order separately Enzygnost/TMB reagents at no cost. One reagent kit is sufficient for 4 kits of 192 tests.



Assay name (Manufacturer)	Order Code	HIV type	Antigen	Sample type	Sensitivity %	Specificity %	Equipment requirements	Storage temp (°C)	Cost/test (US \$) <sup>10</sup>	No. of tests per kit
GENSCREEN HIV 1+2 (BioRad)	72276 72277	HIV-1+2+0	recombinant proteins, synthetic peptides	S, P	100.0	98.5	A, B, C, D, E, F, H	2-8	0.60 0.45	96 480
UBI HIV 1/2 EIA (United Biomedical)	680328	HIV-1+2	synthetic peptides	S, P	100.0	100.0	A, B, C, D, E, F, H	2-8	0.45 0.45	192 960
ABBOTT 3rd GENERATION HIV-1/HIV-2 EIA (Abbott)	7A84-24 7A84-32	HIV-1+2+0	recombinant proteins	S, P	100.0	100.0	Abbott equipment, C, D, E, F	2-8	0.85 0.85	100 1000

**A:** ELISA reader **B:** ELISA washer **C:** Consumables **D:** Pipette **E:** Power supply **F:** For large volume testing more than 40 samples daily **G:** For small volume testing 1 to 40 samples daily **H:** Incubator **S:** Serum **P:** Plasma **W:** Whole Blood (\*under evaluation)

## SIMPLE AND/OR RAPID and SUPPLEMENTAL ASSAYS

Assay name (Manufacturer)	Order Code	HIV type	Antigen	Sample type	Sensitivity %	Specificity %	Equipment requirements	Storage temp (°C)	Cost/test (US \$) <sup>10</sup>	No. of tests per kit
CAPILLUS HIV-1/HIV-2 (Trinity Biotech plc)	6058G 6048G	HIV-1+2	recombinant proteins	S, P, W*	100.0	98.8	G	2-8	2.00 1.10	20 100
SERODIA HIV-1/2 (Fujirebio)	6063	HIV-1+2	recombinant proteins	S, P	100.0	100.0	D, G	2-8	¥130	220
IMMUNOCOMB II BISPOT <sup>12</sup> HIV-1&2 (Orgenics Ltd)	60432002	HIV-1 HIV-2	synthetic peptides	S, P	100.0	99.7	D, G	2-8	1.1	36
DIPSTICK HIV 1+2 (Pacific Biotech Co. Ltd)	HIV-001 HIV-002 HIV-003	HIV-1+2	synthetic peptides	S, P	100.0	98.2	G D (optional)	2-8	0.65 0.42 0.55	48 96 192
DETERMINE™HIV-1/2 (Abbott)	7023-13	HIV 1+2	recombinant protein, synthetic peptide	S, P, W*	100.0	100.0	D, G	2-30	1.2	100
HIV 1&2 DOUBLECHECK (Orgenics Ltd)	60332000	HIV-1+2	recombinant proteins, synthetic peptides	S, P	100.0	99.4	G	2-8	1.35	40

<sup>12</sup> These assays can discriminate between HIV-1 and HIV-2

Assay name (Manufacturer)	Order Code	HIV type	Antigen	Sample type	Sensitivity %	Specificity %	Equipment requirements	Storage temp (°C)	Cost/test (US \$) <sup>10</sup>	No. of tests per kit
HIV TRIDOT <sup>3</sup> (Mitra & Co., India)	IRI30100 (specify size)	HIV-1 HIV-2	recombinant proteins	S, P	99.6	99.7	G	4–8	1.20 1.20 1.20	10 20 50
SEROISTRIIP HIV-1/2 <sup>13</sup> (Saliva Diagnostic Systems)	SH0010	HIV-1+2	synthetic peptides	S, P	98.9	100.0	G	2–25	1.40	30
SUPPLEMENTAL ASSAYS										
INNO-LIA HIV Confirmation (Innogenetics)	K1036	HIV-1+2	recombinant + synthetic peptide	S, P	100.0	100.0	D, E	2–8	13.0	20

**A:** ELISA reader **B:** ELISA washer **C:** Consumables **D:** Pipette **E:** Power supply **F:** For large volume testing more than 40 samples daily **G:** For small volume testing 1 to 40 samples daily **H:** Incubator **S:** Serum **P:** Plasma **W:** Whole Blood (\* under evaluation)

<sup>13</sup> Only to be used as second or third line test in the WHO testing strategies

**ANNEX III**

**Summary of main characteristics of seven CD4 T-cell enumeration technologies**

	Flow cytometry	FACSCount™	Coulter manual CD4+ count kit	Zymune	Capcellia	Dynabeads®	Immunoalkaline Phosphatase
Manufacturer	Becton Dickinson Coulter Corp. Ortho Diagnostic Syst.	Becton Dickinson	Coulter Corp.	Zynaxis Inc.	Sanofi Diagnostics Pasteur	Dynal A/S	Reagents available commercially
Instrument	Flow cytometer and computer assisted analysis. Preparation can be automated. May need use of cell counter.	Automated special instrument	Automated or light microscope and hematocytometer.	Microtiter EIA	Microtiter EIA	Magnet and counting equipment* alt. light or fluorescence microscope	Light microscope
Detection system	Fluorescence labelled MAB against cell surface molecules.	Fluorescence labelled anti-CD3, CD4 and CD8 MAB	anti-CD4 MAB conjugated to beads	Anti-CD4 and CD8 MAB	Anti-CD4 and CD8 MAB	Anti-CD4 and CD8 conjugated to magnetic beads.	Staining of blood smears with anti-CD3, CD4 and CD8 MAB
Specimen	Whole blood with RBC lysis	Whole blood	Whole blood	Whole blood	PBMC	Whole blood	Blood smear
Results	Double, triple or quadruple stainings of any cell surface marker where MAB are available.	CD3, CD4 and CD8 counts	CD4 counts	CD4 and CD8 counts	pmol CD4/L and CD8/L	CD4 and CD8 counts	CD3, CD4 and CD8 counts (or any MAB of interest)

	Flow cytometry	FACSCount™	Coulter manual CD4* count kit	Zymune	Capcellia	Dynabeads <sup>R</sup>	Immunoalkaline Phosphatase
Correlation with flow cytometry (corr coeff)	NA	0.93–0.98 (several inter-national studies)	0.74–0.91 (several inter-national studies)	0.92–0.94 (two studies in USA)	NA	0.94 (one study)	0.96 (one study)
Cost (instruments, US\$)	40–80 000	20 000	2000	15 000 (standard equipment for EIA)	15 000 (standard equipment for EIA)	2000–10 000	2000
Cost/test (reagents only; US\$, approx.)	10–15	20	8		28	5	3
Advantages	Powerful and flexible, allows for double, triple or quadruple stainings. Can be used for examination of difficult samples where alternative techniques often are insufficient.	Few steps, less human error. Low biohazard risk. Quick results. Gives CD3, CD4 and CD8 counts.	Simple and rapid	Simple. Can process many samples at a time. Gives CD4 and CD8 counts.	Gives CD4 and CD8 counts.	Gives CD4 and CD8 counts. Simple and rapid. Flexible, small sample volume. Robust.	Low cost. Long specimen shelf life. Small sample volume.
Disadvantages	Expensive equipment and reagents. Complex, requires highly trained personnel.	Expensive equipment and reagents. Work station allows only 8 samples at a time.	Short shelf life. Gives only CD4 counts.	Many pipetting steps.	PBMC isolation by density centrifugation. Does not give results as a cell number, i.e. difficult to compare results with e.g. flow cytometry. Expensive.	Few samples processed at a time. Subjectivity in visual counting. Short specimen shelf life. Not available as a kit.	Fairly complicated staining process. Laborious manual counting. Not available as a kit.

Precision (coeff of variation) similar for all assays as given by the manufacturers: <5–10%.

\* Automated cell counter or hematocytometer

**PBMC:** peripheral blood mononuclear cells; **MAB:** monoclonal antibodies; **EIA:** enzyme immunoassay; **RBC:** red blood cells; **NA:** not applicable

## ANNEX IV

# Further reading, references and contacts

- *AIDS Epidemic Update*, UNAIDS/WHO, Geneva, 2001 (UNAIDS/01.74E-WHO/CDS/CSR/NCS/2001.2).
- *Access to drugs: UNAIDS Technical Update*, UNAIDS, Geneva, 1998.
- *Guidelines for Drug Donations* (interagency document), WHO, Geneva, 1999 (WHO/EDM/PAR/99.4.<http://www.who.int/medicines/docs/pagespublications/supplypub.htm>).
- *Guidelines on interaction with commercial enterprises to achieve health outcomes* (Annex to *Guidelines on working with the private sector to achieve health outcomes*), WHO, Geneva, 2000 ([http://www.who.int/wha-1998/EB\\_WHA/PDF/EB107/ee20.pdf](http://www.who.int/wha-1998/EB_WHA/PDF/EB107/ee20.pdf)) (EB107/20; November 2000).
- *HIV-related opportunistic diseases: UNAIDS Technical Update*, UNAIDS, Geneva, 1998.
- *Ethical & Social Issues Relating to Antiretroviral Treatments, Module 9*. WHO/UNAIDS, Geneva (WHO/ASD/98.1-UNAIDS/98.7).
- Berwick D. "We All Have AIDS": The case for reducing the cost of HIV medicines to zero. *BMJ* 2002;324: 214-8.
- J A DiMasi et al, "Cost of innovation in the pharmaceutical industry", *Journal of Health Economics*, vol 10, 1991, pp107-14
- The Use of Essential Drugs, including the WHO Model List of Essential Drugs (revised 1999). *WHO Drug Information*, 13(4): 249-262.
- *WHO Model prescribing information: Drugs used in HIV-related infections*, WHO, Geneva (WHO/DMP/DSI/99.2).
- *Guidelines for the management of sexually transmitted infections* (WHO/HIV-AIDS/2001.01).
- *AIDS: Palliative Care. UNAIDS Technical Update*, October 2000 (<http://www.unaids.org/publications/documents/care/general/JC-PalliCare-TU-E.pdf>).

### Intellectual Property rights and pharmaceuticals

- *Globalization, TRIPS and Access to Pharmaceuticals*. WHO Policy Perspectives on Medicines, No.3. March 2001 revised (WHO/EDM/2001.2).
- *Patent situation of HIV/AIDS-related drugs in 80 countries*, UNAIDS/WHO, Geneva, 2000.
- *Globalization, patents and drugs—an annotated bibliography*. Health Economics and Drugs EDM Series No. 9. WHO, Geneva, 1999 (WHO/EDM/PAR/99.6).
- *Globalization and access to drugs—perspectives on the WTO TRIPS Agreement*. Health Economics and Drugs EDM Series 7. WHO, Geneva, 1999 (WHO/DAP/98.9).

### Treatment guidelines

- *2001-2002 Medical Management of HIV Infection*, John G Bartlett, Joel E. Gallant ([http://www.hopkins-aids.edu/publications/book/ch4\\_main.html](http://www.hopkins-aids.edu/publications/book/ch4_main.html)).
- *Guidance Modules on Antiviral Treatments, Module 4*. WHO/UNAIDS, Geneva, 1998 (WHO/ASD/98.1-UNAIDS/98.7).
- *Safe and effective use of antiretroviral treatments in adults, with particular reference to resource limited settings* (WHO/UNAIDS/International AIDS Society), WHO, Geneva (WHO/HS/2000.04. <http://www.paho.org/english/hcp/hca/useARVadults.pdf>).
- *Standard treatments and essential drugs for HIV-related conditions*, WHO, Geneva (DAP/97.9).

### Pricing strategies

- *Alternative drug pricing policies in the Americas*, World Health Organization, Action Programme on Essential Drugs (WHO/DAP/95.6).
- *Public-Private Roles in the pharmaceutical sector. Implications for equitable access and rational drug use*. World Health Organization, Action Programme on Essential Drugs (WHO/DAP/97.2).
- *Overview of pharmaceutical pricing and reimbursement regulation in Europe*, Panos Kanavos, LSE Health and Social Care.

- Annex: *Comparative Review of Drug Prices. Policies on Pricing and Reimbursement of Medicines in Europe*, Networking for Information Exchange among policy Makers, WHO Euro, November 2000.

## Websites

### Partner sites

UNAIDS: [www.unaids.org](http://www.unaids.org)

UNICEF: [www.unicef.org](http://www.unicef.org)

WHO: [www.who.int](http://www.who.int)

MSF: [www.msf.org](http://www.msf.org)

### Public drug prices

#### Spain:

<http://www.cof.es>

<http://www.canaldefarmacia.com>

#### UK:

<http://www.drugtariff.com>

<http://www.doh.gov.uk/generics>

#### Brazil:

<http://bpreco.saude.gov.br/pls/BPREFD/consulta.inicio>

#### Latin America & Caribbean:

[http://www.paho.org/English/HCP/HCA/antiretrovirals\\_HP.htm](http://www.paho.org/English/HCP/HCA/antiretrovirals_HP.htm)

#### Canada:

<http://www.pmprb-cepmb.gc.ca>

#### WHO:

<http://www.who.int/medicines/organization/par/ipc/drugpriceinfo.shtml>

#### Other:

<http://cptech.org/ip/health/econ/pricingstudies.html>

## Treatment & testing guidelines

### Taken from

[http://www.who.int/HIV\\_AIDS/first.html#HIV/AIDS%20Care%20and%20Antiretrovirals](http://www.who.int/HIV_AIDS/first.html#HIV/AIDS%20Care%20and%20Antiretrovirals)

- Safe and effective use of antiretroviral therapy in adults with reference to resource poor settings 2000
- Key elements in HIV/AIDS care and support 2000
- Fact Sheets on HIV/AIDS for nurses and midwives
- Nine Guidance Modules on Antiretroviral Treatments, 1998
- WHO-UNAIDS HIV Vaccine Initiative
- Voluntary Counselling and Testing for HIV Infection in Antenatal Care: Practical considerations for implementation
- Guidelines for the Management of Sexually Transmitted Infections
- Report of the WHO consultative meeting on ARV use in resource limited settings, May 2001

### Other websites for general information on HIV/AIDS related issues

<http://www.globalfundatm.org>

<http://www.genericsnow.org>

<http://www.avert.org>

<http://www.aegis.com>

<http://www.msh.org/>

<http://www.haiweb.org>

<http://www.phrma.org>

<http://www.ims-global.com/insight/report/global/report.htm>

**Contacts:**

For further information about suppliers or products, please contact:

- Pharmaceutical and Micronutrient Group, Sources of Drugs for HIV/AIDS Survey, UNICEF Supply Division  
Supply@unicef.org  
Fax +45 35 269421

For further information on HIV test kit evaluations or the bulk procurement scheme, contact

- Blood Safety and Clinical Technology (BCT)  
World Health Organization  
Fax +41 22 791 4836

**For any comments on this document, or additional information that could be useful to this project, please contact:**

- Sources of drugs for HIV/AIDS Survey  
Pharmaceutical and Micronutrient Group, UNICEF, Supply Division  
Fax: +45 35 269421

- Essential Drugs and Medicines Policy (EDM)  
World Health Organization  
Fax: +41 22 7914167
- Department of Social Mobilization and Information, UNAIDS  
Fax: +41 22 7914741
- Campaign for Access to Essential Drugs, MSF  
Fax: +41 22 8498404

**Alternatively, please complete the feedback form, Annex V, and return it to**

- Sources of drugs for HIV/AIDS Survey  
Pharmaceutical and Micronutrient Group  
UNICEF Supply Division  
Unicef plads  
Freeport DK-2100  
Copenhagen Ø  
Denmark  
Fax: +45 35 269421  
Email: supply@unicef.org

## ANNEX V

# Feedback and enquiry form

Please fill out this form and fax it to UNICEF Supply Division +45 35 26 94 21 or post it to:  
UNICEF SD, Pharmaceutical and Micronutrient Group – HIV/AIDS Survey, Freeport DK-2100 Copenhagen Ø, Denmark

### 1. GENERAL INFORMATION

Your name	
Occupation	
Company name/Organization name	
Address	
Telephone	Fax
Email (required)	
Internet address	

### 2. FEEDBACK

**What did you think of the publication in general?**

- ☐ Excellent, very useful   ☐ Good, quite useful   ☐ Satisfactory, reasonably useful  
☐ Poor, not useful—please indicate why: \_\_\_\_\_

**What did you think of the drugs included in the publication?**

- ☐ Good selection of drugs  
☐ More drugs required, for example: \_\_\_\_\_  
☐ Fewer drugs required, remove: \_\_\_\_\_

**What did you think of the pricing information?**

- ☐ Good, enough information on the prices of drugs of interest  
☐ Poor, not enough information

**Have you contacted any of the manufacturers listed?**

- ☐ Yes   ☐ No

**Other comments:**

### 3. ENQUIRY

- ☐ I would like to participate in the next Survey (Manufacturing companies only)  
☐ I would like to receive more copies of the Publication

Other enquiry: \_\_\_\_\_